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Résumé de l'article

Cet article s'intéresse au design des appareils photo. L'auteur explique que le design joue un rôle prépondérant dans l'interaction entre l'*Operator* et le *Spectator* (R. Barthes) et qu'il détermine même certains effets esthétiques. Les différences physiques et ergonomiques entre les appareils analogiques et numériques y sont également pris en considération.

Cameras: Forms of Interaction

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In a famous essay, A.J. Greimas (1984) mentions that Diderot, at a certain moment in his life, started conceiving of painting in a new way. In describing works exhibited in various *salons* his account of them broke down into two sections. One section, concerned with painting as a figurative practice, sought to interpret what an artist was trying to *say* through recognizable forms, objects or scenes. In the other section, he seemed to be concerned with understanding what an artist had *done*, which, for instance, meant looking at the traces left on the canvas by the brush. In Greimas' terms, "plasticity" now replaced figuration as a focus of interest. The famous author of the *Encyclopedia* thought of this as a way "to see" yet another expressive level in a pictorial work, one provided with its own logic.

What I seek to achieve in this essay is to move further ahead in the direction traced by Diderot and developed conceptually by Greimas. Instead of investigating what photographers say or do, I wish to look at the instruments they use, namely the camera itself. More specifically, my goal is to look at how this instrument, "acts" on the artwork or, better yet, to consider how the photographic work of art results from a meeting between a *Spectrum*, a person and a camera. I am particularly interested in the form of *hybridity* (Latour 1996) that emerges when an actor comes into contact with an instrument that modifies his competency, enabling him to achieve something he was previously incapable of carrying out. The central point is that in the exact moment in which the artist becomes capable of doing "something more", the camera — or any other kind of tool, more generally — is transfigured and seen to embody some specific sort of power or *potentia*. As a result, the *hybrid* should not be considered as the mere sum of human being and machine, but as something that "goes beyond" such a simple addition. This ought to force the researcher to reexamine how much and to what extent the outcome of such an interaction might be predictable. My ambition is to improve our knowledge of this form of

hybridity or, in semiotic terms, this *actant*.

Therefore, I'm going to consider the various ways in which photographer and camera interact. Obviously this program can be met in any number of ways, as many as there are ways to describe a camera, in fact. Hence, I need first to describe the criterion that I shall be using. What is required is a criterion that can help use achieve an objective description all the while shedding some light on the semiotic issues involved. I came upon this criterion by breaking down the act of taking pictures into four steps. These steps also serve to distinguish between the various parts of the camera that are involved in the interaction. These four steps/parts are:

- 1) gripping
- 2) framing
- 3) setting-up
- 4) shooting

As mentioned above, each one of these "actions" engages a different part in the material design of a camera. In turn, each part is designed with a specific interaction in mind and each interaction generates an effect on the overall production of a picture.

Before getting into the analysis, I want to mention that most of the examples I shall be using pertain to analogue and digital cameras that have been manufactured by Nikon and Canon during the last 35 years. I have decided to take into consideration only these two brands because they are the largest competitors in the market and, as such, are all the more required to differentiate their products. In a certain sense we can say that they both need to interpret their design approach in ways that oppose or contrast one another. Other camera manufacturers have also been taken into consideration though only in passing.

I also wish to point out that I've deliberately omitted any preliminary consideration over the differences between analogue and digital photography. This is because I feel it is more interesting to let these differences come up through analysis rather than as *a priori* assumptions. In a sociosemiotic perspective, differences should never be considered as something given but, on the contrary, as the product of a specific system.

Gripping

Surfaces where a contact takes place between people and tools or instruments usually offer great suggestions for the analysis of technology. In particular, the shape of the grip of a camera has always been very important as can be seen by the history of photography. The success of artists such as Henri Cartier-Bresson or Robert Capa rests, at least in part, on the different approach to picture taking made possible by their Leica camera (model I, first built in 1925). As a matter of fact, this innovative camera, with its small size and new viewfinder, enabled photographers to both shoot quickly

and hold the camera in front of their eye without being noticed² (Newhall 1982). But while an historical analysis of such matters is conceivable, my own interest leads me to the contemporary period where the “problem” of the grip must be considered with reference to ergonomics. Thinking about an object designed in accordance to ergonomic criteria means thinking about something comfortable whose shape fits our body and makes us better at accomplishing a given task. In other words, ergonomics require that an object “adapts itself” to our body with regards to the specific goal the object is meant to help us achieve. In theory this approach should work, but as a matter of fact ergonomics soon became a caricature of itself. The “ergonomic imaginary” is made of specific shapes (continuous and rounded surfaces) as well as certain materials (soft, warm, rough) that are often used as expressive traits to signify — somewhat superficially — the concepts of modernity and rationality, but that don’t come together with a real in-depth study of gestures and interactions. Every supermarket is now filled with various so-called “ergonomic” objects whose streamline shapes are meant to connote the present moment as “futuristic”.

The influence of ergonomics becomes clear when looking at cameras’ bodies, and in particular at grips and at controls (including their shape and position). A few years have been enough to change the grip of the Nikon professional line of cameras, the F-series, from the one represented in figure 1 to the one seen in figure 2. The second one is definitely bigger and its shape should make it easier to be grasped by the Operator. This is what should happen in theory, but in practice the inverse effect is equally produced: the camera now firmly “grabs” the Operator’s hand which is forced to follow the contour of the “imprint” of a hand on which the grip is shaped (Fontanille 2004), a generic hand whose owner nobody knows. Therefore, the grip cannot be considered passive, on the contrary it seems to structure the way in which the Operator holds the camera and, as a result, the way in which he will frame the *Spectrum*. The hand’s position also affects the ease with which controls can be reached and the frequency of their activation. Thus the question that arises is how much the camera contributes to the Operator’s decisions, and in particular: does this perfectly adapted grip encourage certain shooting positions over other positions?



Figure 1 – Nikon F2 (manufactured from 1971 to 1980) (picture by the author)



Figure 2 – Nikon F4 (manufactured from 1988 to 1996) (picture by the author)

What we know for certain is that Nikon engineers probably noticed that the F4's large grip made it difficult to shoot in vertical position. As a result it was replaced by the F5's thinner and less "aggressive" gear (fig. 3). But there is more: the F5 also has a new shooting button in the bottom part of the camera that comes exactly under the photographer's finger when he holds the camera in vertical position. I would not be surprised, therefore, to discover that F5 users are more drawn to vertical shots than other photographers. I'm not thinking about some kind of conditioning: the new button simply makes a given action easier to perform. Where there was an obstacle now there is an invitation that sooner or later will be accepted, making people better acquainted with this "aesthetic". In other words, the interface simply creates a *tension* (or inclination) towards a way of shooting which then becomes more likely.



Figure 3 – Nikon F5 (manufactured from 1996 to 2004) (picture by the author)

Accordingly, man-machine interfaces can be usefully conceived as a *contract* to which the various parties involved contribute. Any adaptation is always a re-negotiation of a relationship and is never a one-sided action. When one of the parties tries to adapt itself to the other — as it happens in this case — a reconfiguration of the whole relationship takes place. It is not by accident that certain companies like Leica, so beloved by Cartier-Bresson, have never changed the shape and the interface of their cameras, at the risk of being considered too "traditional" or even "antiquated". Preserving this old-fashioned style they not only make the brand identity stronger, but also, in a deeper sense, they keep in touch

with those photographers that love a certain way of taking pictures and therefore a certain “kind” of pictures that these cameras, in a certain sense, “embody”.

A consequence of the above is that we should rethink ergonomics in a more open fashion. It cannot be simply considered a way of adapting an object to a user with regards to a given function, but rather as a way of setting-up what I propose to call a “functioning”, that is to say a relationship between people and things within a precise operational context (see Marsciani 1999). I consider the difference between “function” and “functioning” to be a new way of looking at the relationship between people and things that takes into consideration the multiple aspects of what we usually call function, whether they imply an action perpetrated on the material world or the production of meaning (see Greimas 1983; Floch 1995; Landowksi-Marrone 2002). This is because the meaning of an object, despite its non material essence, is able to produce real effects. A throne, says Umberto Eco (1968), is a chair whose primary function — letting people sit down — should be considered as a minor function with regards to the secondary, signified function, that has to do with controlling an army. The purpose of a throne is to make people obey not to make them sit comfortably (not surprisingly thrones are often uncomfortable).

In order to discuss the extent to which the shape of a camera can reconfigure the relationship between itself and an Operator, and between the Operator and a *Spectrum*, we will examine the Nikon S4, a digital non-reflex camera designed — it seems — to introduce variations into these relationships and therefore make possible several “uses”. The idea that drives this design is simple and original: making the grip independent from the lens and the viewfinder (a small monitor that can be moved in many different positions), thus making the user choose which shooting position to adopt.

The swivel between the lens and the grip/monitor, enables the Operator to hold the S4 camera in front of his face, or up over his head, as well as down near his diaphragm, and in each case he will simply need to readjust the monitor-viewfinder to get a perfect view of the *Spectrum*. And here comes the clincher: the Operator’s position produces effects not only on the picture being taken in terms of angle and therefore of aesthetics (shooting from a very low angle near the ground, for example) but also on the relationship that is created between somebody looking (the Operator) and somebody or something being looked at and framed (the *Spectrum*). An example should clarify what I mean. When shooting with such a camera — since there is no need to align eye, lens and *Spectrum*, as was the case with traditional SLRs — the Operator can stay in eye contact with the subject while holding the apparatus in front of his diaphragm. A few rapid glances are enough to check that everything is properly framed and the Operator can now look directly

at the *Spectrum*.



Figure 4 - Coolpix S4 (manufactured from 2005) (picture by the author)

From a semiotic point of view, what changes concerns what Landowsky (1989) calls the “viewing regimes” of Operator and *Spectrum*: not only can the Operator easily hide when shooting but also, from the point of view of the *Spectrum*, many new modalities of “appearing” and engaging with the Operator become possible. But there is more. The new modalities of interaction also affect the particular “detachment” that the Operator usually experiences when looking through the viewfinder. Julio Cortázar depicts perfectly this moment in which a piece of reality becomes a flat image in his short story *Las babas del Diablo*. He writes:

Michel knew that the photographer always worked as a permutation of his personal way of seeing the world as other than the camera insidiously imposed upon it (now a large cloud is going by, almost black), but he lacked no confidence in himself, knowing that he had only to go out without the Contax to recover the keynote of distraction, the sight without a frame around it, light without the diaphragm or 1/250 second (Cortázar 1985 : 117-118)

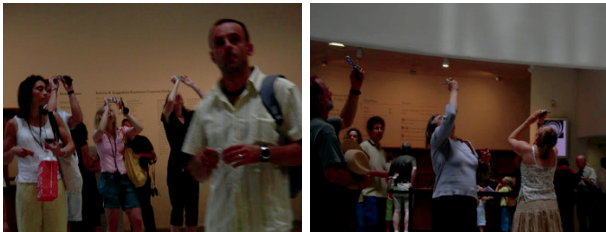
With regards to the *Spectrum*, the way of “making ourselves seen” also changes. Not only is it easier to capture the subject unaware but new circumstances arise with regards to how it might desire to be photographed. New shooting capabilities configure new shooting criteria.

Framing

One of these practices was barred to me and I was not to investigate it: I am not a photographer, not even an amateur photographer: too impatient for that: I must see right away what I have produced (Polaroid? Fun, but disappointing, except when a great photographer is involved). I might suppose that the *Operator's* emotion (and consequently the essence of Photography-according-to-the-Photographer) had some relation to the “little hole” (*stenope*) through which he looks, limits, frames, and perspectivizes when he wants to “take” (to surprise). (Barthes 1981: 9-10)

When you have to look through a small opening to take a picture, it can be considered an individual act. It is the solitary adventure of an eye that chooses and imagines. In such a scenario the pleasure of shooting is an intimate one in which only the camera can play a role. Rangefinder³ cameras, for example, like Cartier-Bresson's Leica I, "create" this pleasure and, in a certain sense, create the photographer as well. Due to the focusing system, they don't show in the viewfinder exactly what will appear on the negative, but always introduce a slight discrepancy. It is the so called "parallax problem" that forces the photographer to "imagine" what the camera really "sees" by interpreting some small signs that the viewfinder superimposes on the image. In order to control the final result the Operator needs to know his camera very well and also to perceive "what is not in the viewfinder".

In order to analyze framing as an act, rather than a mere effect of the printed photograph, I have opted to observe a particular kind of photographer, the tourist. Tourists are the perfect subjects for such an investigation because they usually are interested in the same *Spectrum* and tend to take pictures from similar angles. All that the researcher is required to do is to make his way to a famous tourist location and look for people carrying cameras. This is exactly what I did in 2006 at the Guggenheim Museum in New York, a location especially suitable for my purposes because of its particular shape. The structure, as everyone knows, is in the shape of a spiral whose diameter increases progressively starting from the smallest circle at the very bottom and ending with the largest on top. Every visit starts from the bottom but what is important is that it is only from that spot that one is allowed to take pictures. Due to the beauty of the architecture and to the aforementioned the regulation — very frustrating for the poor tourists — this small area quickly becomes the focus of a collective attack of photographic bulimia strengthened by the knowledge that later on everybody will be required to store their camera. Visitors then quickly starts to take picture of just about everything, whether of friends or of the architecture. This "forced" situation makes it easy to observe photographers' behaviour (figs. 6-7).



Figures 6 & 7 - Photographers at the Guggenheim Museum (pictures by the author)

In this context, photographers seem compelled to explore all the

possibilities that the space offers as well as those offered by their camera. This becomes the perfect moment to “test that special effect that we never tried before” or to push that mysterious button we never had the time to push. With the opportunities for picture-taking all concentrated in the single location and with the limited field offered by the subject, technique becomes the only way out of an otherwise frustrating situation (fig. 8).

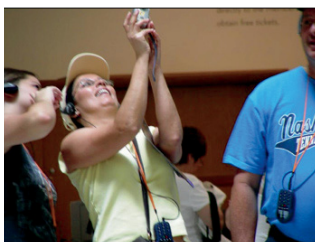


Figure 8 - Social picture (picture by the author)

One observation that seemed particularly interesting concerns the way in which the use of the monitor (instead of the traditional viewfinder) can change the act of taking a picture. What happens, briefly, is that photography moves from a solitary or individual act to a (potentially) social one. Figure 8 clearly shows that the person holding the camera isn't alone in front of reality anymore; the monitor makes it possible for another person to take part in the process of taking a picture with the result that the “view” that will be imposed on the pre-existing reality may not belong to the photographer's point of view alone. What was an intimate moment of choice can now become a moment of interaction and negotiation: a “social picture”

Another relevant difference introduced by monitor screens pertains to “framing”, intended here literally as the act of “putting something inside a frame” and, therefore, something else out of it (“off-screen”). Indeed, whereas reflex cameras traditionally tied the photographer's gaze to the viewfinder, one may now effortlessly view what the framing will mask. This means that a perceptive continuity between the world and that part of it that $1/125^{\text{th}}$ of a second later will become a picture, is now possible. This singular feature of digital cameras not only makes possible what I referred to earlier as the “social picture”, but it also changes the way in which the photographer is sensorially implicated. Despite what people usually think, sight isn't the only sense involved in taking pictures. When shooting with an SLR, for example, a good Operator usually knows exactly what is happening around him while he is looking into the viewfinder. There are two important reasons for this. First, something noteworthy may suddenly happen outside the field of the viewfinder and he ought to be ready to shoot it as well. Secondly,

what lies outside the frame might move into the field of vision. Usually it is a car that passes exactly when it should not, or a distracted person that decides to walk in front of San Marco's portal in Venice after we had finally achieved a perfect framing of it. In these situations taking a picture becomes a matter of quick looks (outside the viewfinder) and of keeping our ears wide open. With digital cameras the ability to "hear" and to "see" what is not visible in the viewfinder is "transferred" to the apparatus: now it is possible to glance around effortlessly without straining our perceptual capabilities or developing a "sixth sense". Because of technology, the latter simply becomes redundant. However, with its inevitable disappearance there also disappears a "way of looking" and a "way of being".

When moving from analogue to digital photography specific and *ad hoc* practices may be affected. One such practice is that which consists in asking a stranger to use our camera to take a picture of ourself in front of some landmark or with a group. Tourists can often be seen doing this (Dondero 2005). With regards to traditional photography we can subdivide this practice according to four "distinct moments":

- 1) a "guest" photographer is selected (often another tourist) and a request is made;
- 2) knowledge and competency are transferred (basic instructions are given as to how to operate the camera: "just push this button");
- 3) a photographic performance takes place;
- 4) there is a sanction for an activity over which nobody has any real control. The true sanction comes later when the photograph is printed ("It's not framed properly!").



Figure 9 – Being photographed by an unknown person at Guggenheim Museum (picture by the author)

Digital technology deeply transforms this script as one of the videos I shot at the Guggenheim museum illustrates (fig. 9). The beginning of the interaction is very similar. The subject, in this case two women, first spend a few moments looking around searching for the right "guest photographer". After a few moments they choose a man, offer him the camera along with instructions on how to use it. He shoots and gives the camera back to the women, at which point they thank

him.⁴ Unexpectedly, however, the interaction doesn't end here as it typically did with traditional photography. In the older script there was no reason for the "one time Operator" to stay with the "subject". Digital cameras have the ability to re-write the script, however, and change the way people behave in this situation. In our video, for instance, once the girls retrieved their camera they immediately checked the photo; but what was more interesting was the fact that the photographer didn't instantly walk away. Instead, he stayed with the two girls until they thanked him once more *after* they had viewed the picture. Only then did he take his leave, visibly satisfied. A new relation is thus introduced into the script.

From a semiotic perspective this is a revolution: not only the performance decreases in value (it can be repeated almost indefinitely) but also what happens prior to and after it equally changes. It becomes possible to instantly judge the action of the photographer. Moreover, this instantaneous judgement is even expected to take place to some degree. Gratification is double: the subject can thank the photographer both for agreeing to take the picture and for its quality. I also mentioned that what takes place before the picture is taken changes as well. With traditional cameras choosing the right "guest photographer" was a critical decision: one had to choose an Operator who would not chop heads or frame too badly. The photographer's competency often had to be inferred — generally through a careful examination of this person's own photographic gear. The best candidate was the individual who possessed bagfuls of expensive material or seemed to know what they were doing when taking pictures of their own. One would look for a certain kind of sophistication. Nowadays, a technical device may relieve people from the burden of carefully choosing their photographer: even the worst technical error can instantly be discovered and it will be possible to correct it with a new picture. On the other hand, however, tension may increase for the would-be photographer: his competency will be judged instantly. In some cases refusing the request to take the picture may seem the right thing to do! Changes in technology not only involve changes in how people do certain things but also, in a more general sense, changes in the way they conduct themselves and therefore in their morality (Latour 1992). It may be that in certain situations, digital cameras will make people less friendly when asked to take a picture and this may lead those who make such requests to attempt instead self-portraits. It is not by accident that the do-it-yourself-picture has become a "genre" with its own aesthetics, one made possible by the instant reviewing feature of digital photography and by the extremely low cost of picture taking (until they are printed, of course).

A proliferation of photos, moreover, seems to me a crucial aspect of the digital revolution, one that may lead to a reconsideration of photography itself. As a matter of fact, it challenges one of the cornerstones of photography: the uniqueness of the photographic act. When cameras used to impress a silver coated negative, photography required one to postpone the view of

the captured instant, turning the act of taking a picture into a unique and localized singular event. Any framing or technical error would show up days later when it might be impossible to re-shoot the subject. With digital cameras, however, because one may review a picture mere seconds after shooting it, becomes easy — whenever the subject permits — to correct what was perceived as errors in framing, aperture or focus, by shooting a new picture. Obviously if the subject is a running man we will never find him in the same position again, but if we are taking a picture of a landscape or of a still object, it won't be difficult to improve on the previous image by shooting a new one. Photography isn't a matter of unique instants any more, now moments are the result of adjustments and modifications, they have become the controlled expression of an author whose *intentio* isn't made up of *a posteriori* delusions and meditations but of multiple attempts in the fast-food of aesthetics, full of quick regrets and fast revisions.

Setting-Up

The setting-up phase is usually characterized by a wide variety of actions: exposure setup, focusing, framing by using the zoom. Each of these interventions “takes place” on a specific part of the camera and involves a specific set of controls. In this paper, due to constraints of length, I shall consider only focusing and framing.

Previously, when the right focus had to be found manually, the photographer had to “search” for it. With SLR cameras, the Operator usually began by framing the scene and only then moved the focus ring on the lens until the image in the viewfinder became perfectly sharp. Since focusing was obtained in a progressive way, effects like the one seen in figure 10 might be obtained by chance. When you move the ring, in fact, the focus “passes over” different zones in the image before getting in the “right” place, which usually lies at the centre of the image⁵. In some instances an off-centre focus may make visible a subject that we didn't initially conceived of as being the primary one in the picture; and yet we “discover” that this non-conventional composition is more “interesting” than the classical one we had intended.



Figure 10 – An example of an off-centre focus (picture by the author)

Such serendipity in setting-up has become difficult to achieve,

nowadays, with autofocus systems. For it is the machine that now sets sharpness with a sensor usually placed at the centre of the frame and that instantly focuses on that point, obeying to the dominant aesthetic. Obtaining an effect such as the one described above is still possible of course, but the way to achieve it is now totally different: one has to first focus on the point that is to be perfectly sharp and then lock the focus (usually by pushing the shutter-release button halfway) before changing the composition on display. In theory, then, the same effect can be achieved but, in practice, the results are quite different since what really changes is the overall approach to the composition of the image. In other words, when using the automatic focus, a result different from the one the camera is designed to achieve (*i.e.* centre-based composition), can be obtained only if the photographer has a clear idea of what he wants to achieve in advance and if he is able and willing to act “against” the automatism of the camera. On the contrary, with manually focused cameras, the same result is not necessarily predetermined, but may be the product of a “discovery” by the photographer. Camera manufacturers know exactly what gets lost when using the autofocus and sometimes try to reduce the gap by recovering “manual practices”. Canon, for example, introduced a few years ago the “eye control system”, a device that makes it possible for the Operator to focus a point different from the centre simply by looking at it. The technical functioning is simple: there is a device in the viewfinder that reads the position of the pupil and activates the focusing sensor closest to that point⁶. This device may appear to solve the problem since it calibrates the focus exactly where the photographer wants it, but it doesn’t really restore the traditional practice; it doesn’t recover the serendipitous or “discovery” aspect mentioned above. There are at least two reasons for this: the first has to do with the fact that the number of “sensor points” is necessarily limited and therefore not truly continuous; the second is that with this system the Operator, in order to focus on a specific point, needs to look at it and therefore his interest in it must *preexist* the focusing phase. In other words, this system offers an approach to the image closer to that of an engineer than that of a *bricoleur* (Floch 1995).

Another point worth considering is the variation of focal length that zoom lenses have made possible. Nowadays most cameras come equipped with a zoom lens whose main feature is to optically move closer or further away from the *Spectrum*. A far away object may be seen in close-up or may appear to be a detail in a vast landscape when one zooms out. Despite the success of this type of lens that “amalgamates” many different lenses into a single lens, support for the zoom is far from unanimous. Several photography guidebooks, for example, are very critical of it because — so the claim goes — it doesn’t help budding photographers develop a proper sensibility toward composition. Fixed focal lenses, the experts claim, give the photographer a more subtle feel

of pictorial space educating him in a certain way of seeing.

A good exercise to understand the role a technology plays in people's lives is to think about what it does on our behalf (Latour 1992). What is it then, we might ask, that the zoom lens achieves on behalf of the photographer? The effect produced when using a zoom might resemble what happens when the photographer changes location (if we don't consider the zoom lens' foreshortening effect). Yet, what does it change to move one's eye (or point of view) in space without moving the body as well? Moving in space always entails "being acted upon" by space itself. When we move, all the relationships we have with things change, and this includes also the relationships we have with other people, because space is the basic field for semiosis in any physical relation. In other words, moving in space doesn't merely produce a visual rearrangement of what is around the photographer, but implies a more deeply structured sensorial and relational change. Lived space is never something given — a constant — it is rather something that is constructed by the way we occupy it. This is even truer when the person occupying space and moving through it wears a camera around his neck and look at the world through a lens. It is not by accident if Cartier-Bresson opted to shoot most of the time with a 50 mm lens: that particular lens was not only the one he had in his own eye (so to speak) but also the one that enabled him to foster a particular visual and physical relationship with the world around him and with other people. Other photographers prefer other lenses and this happens not only because they have a different aesthetics but also a different ethic and way of being in the world.

Perception, says Merleau-Ponty (1945), is a paradoxical phenomenon because the instrument that we use in order to perceive — one's own body — belongs to (or is continuous) with what we have perceive.

The subject of sensation is neither a thinker who takes note of a quality, nor an inert setting which is affected or changed by it, it is a power which is born into, and simultaneously with, a certain existential environment, or is synchronized with it. (1962: 211)

In the sensible we can find the "proposal of a certain rhythm of existence" that goes through all the senses. Normally, perception is not broken-down by the distinct senses; one doesn't see and hear separately. Even when the senses are involved in different ways, assigning one's experience only to one of them is the result of "[putting] perception into the thing perceived" (Merleau-Ponty 1962: 190). The sensible is a "kind of confused problem" for the body, and it is necessary for me to "find the attitude which will provide it with the means of becoming determinate." (*Ibid.*: 191)

When the perceiver is a photographer the situation becomes more complex. Indeed, the subject of perception isn't a "simple" body anymore but an actant made up of a human being *and* a camera. The camera should not be considered merely as something more to be perceived, an-

other piece of world to deal with, but rather as something that produces effects on perception, that deeply changes one's normal approach to the world. If sensation is "literally a form of communion" (*Ibid.* 1962: 190) in the case of a photographer such a communion is secondary to a process that deeply changes the sensorial basis of perception. In other words, the subject of perception in this case is a "hybrid" whose features need to be defined before evaluating the results of his actions on the world, including perception itself. Now the question is: what is the nature of this hybrid? How can we "reconstruct it" as a perpetual subject? If perception is not to be considered a passive moment in which something breaks into our consciousness but an active moment in which perceiver and percept are co-constructed, then the interaction should be considered the key to a conception of the "thinking-hybrid". The traces of the relation that leads to a perceptual strategy can be found in the ways in which Operator, camera and *Spectrum* act upon each other, in the "forms of interaction" they realize. The communion with the world is a consequence of values, beliefs, etc., but all of them develop from practices and interactions.

To sum up, the photographic act ought to be seen as a complex and articulated perceptual phenomenon — the hybrid — which forms the basis for its end result: the photographic image.

The Click

...Hence, strangely, the only thing that I tolerate, that I like, that is familiar to me, when I am photographed, is the sound of the camera. For me, the Photographer's organ is not his eye (which terrifies me) but his finger: what is linked to the trigger of the lens, to the metallic shifting of the plates (when the camera still has such things). I love these mechanical sounds in almost voluptuous way, as if, in the Photograph, they were the very thing — and the only one thing — to which my desire clings, their abrupt click breaking through the mortiferous layer of the Pose. (Barthes 1981: 15)

At last comes the click, and in order to give us proper confirmation of the role of perception (and of picturing) modern digital cameras now simulate that voluptuous metallic sound that so enraptured Barthes. There is no technical reason to include this sound in compact digital cameras (or any other sound, for that matter), and because of this it becomes more meaningful as a pure "sense effect". This click, then, comes to fulfill an experience even though it may now have been transformed in myriad ways.

Notes

- 1 Roland Barthes in *Camera Lucida* (1980) calls *Spectrum* that or whom is being photographed, Operator the photographer and Spectator the person who looks at the image. This is because he thinks — as do I — that the common words are too heavily connotated and lead people to think through preconceived notions of photographer, subject etc. making it harder for them to accept new ones.
- 2 Leica I, thanks to its dimensions, quick pointing and focusing system, became

famous as a camera that is easy to “hide”. However, the real issue might not have been its concealability but rather the fact that photographers using it were not recognizable as “someone shooting”. When it first appeared, in fact, photographers were more often seen looking down toward a camera held at diaphragm-level. The Leica 1 was the first model that was made to be held at eye-level and in this regard it transformed our image of the photographer.

- 3 The rangefinder is a focusing mechanism that allows the photographer to judge the focusing distance by showing him a doubled image that merges into a single one once the view is properly focused.
- 4 The clip is too noisy to understand what people are actually saying, fortunately, their gestures let us understand perfectly well what they mean to express.
- 5 Obviously there is no rule that says that the focus rest be exactly in the centre of the image, and we should consider this as a cultural convention that is both aesthetic and perceptual.
- 6 There are some other technical solutions to achieve the same result, often based on a button or a “multi-selector” to choose which area to focus. A different system based on contrast measurement is a common device found in compact digital cameras. None of this, however, has any impact whatsoever on the points I’m raising.

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Abstract

This essay examines the material design of cameras. The author argues that design plays a central role in the interaction between *Operator* and *Spectator* (R. Barthes) and, furthermore, that it entails significant effects on photographic aesthetics. Finally, the author also considers some of the design differences between traditional emulsion cameras and digital cameras.

Résumé

Cet article s'intéresse au design des appareils photo. L'auteur explique que le design joue un rôle prépondérant dans l'interaction entre l'*Operator* et le *Spectator* (R. Barthes) et qu'il détermine même certains effets esthétiques. Les différences physiques et ergonomiques entre les appareils analogiques et numériques y sont également pris en considération.

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